

Docket No.: NHL-SCT-21 US  
Serial No.: 09/758,903

Al<sub>2</sub>O<sub>3</sub> > 14 - 25  
MgO 4 - 8  
CaO 0 - 8  
SrO 2.6 - < 4  
BaO 0 - < 0.5  
with SrO + BaO > 3  
ZnO 0 - 2.

2. An alkali-free aluminoborosilicate glass having a coefficient of thermal expansion  $\alpha_{20/300}$  of between  $2.8 \times 10^{-6}/K$  and  $3.4 \times 10^{-6}/K$ , which has the following composition (in % by weight, based on oxide):

SiO<sub>2</sub> > 58 - 65  
B<sub>2</sub>O<sub>3</sub> > 6 - 11.5  
Al<sub>2</sub>O<sub>3</sub> > 14 - 25  
MgO 4 - 8  
CaO 0 - < 2  
SrO > 0.5 - < 4  
BaO 0 - < 0.5  
ZnO 0 - 2.

3. An alkali-free aluminoborosilicate glass having a coefficient of thermal expansion  $\alpha_{20/300}$  of between  $2.8 \times 10^{-6}/K$  and  $3.6 \times 10^{-6}/K$ , which has the following composition (in % by weight, based on oxide):

SiO<sub>2</sub> > 58 - 65

$B_2O_3$	> 6 - 11.5
$Al_2O_3$	> 21 - 25
MgO	4 - 8
CaO	0 - 8
SrO	2.6 - < 8
BaO	0 - < 0.5
with SrO + BaO	> 3
ZnO	0 - 2.

4. (Amended) The aluminoborosilicate glass according to Claim 1, characterized in that it comprises more than 18% by weight, preferably at least 20.5% by weight, particularly preferably at least 21% by weight, of  $Al_2O_3$ .

5. (Amended) The aluminoborosilicate glass according to Claim 1, characterized in that the glass comprises more than 8% by weight of  $B_2O_3$ .

6. (Amended) The aluminoborosilicate glass according to Claim 1, characterized in that it additionally comprises:

$ZrO_2$	0 - 2
$TiO_2$	0 - 2
with $ZrO_2$ + $TiO_2$	0 - 2
$As_2O_3$	0 - 1.5
$Sb_2O_3$	0 - 1.5
$SnO_2$	0 - 1.5
$CeO_2$	0 - 1.5

Cl<sup>-</sup> 0 - 1.5  
F<sup>-</sup> 0 - 1.5  
SO<sub>4</sub><sup>2-</sup> 0 - 1.5  
with As<sub>2</sub>O<sub>3</sub> + Sb<sub>2</sub>O<sub>3</sub> + SnO<sub>2</sub> + CeO<sub>2</sub>  
+ Cl<sup>-</sup> + F<sup>-</sup> + SO<sub>4</sub><sup>2-</sup> 0 - 1.5.

7. (Amended) The aluminoborosilicate glass according to Claim 1, characterized in that the glass is free of arsenic oxide and antimony oxide, apart from unavoidable impurities, and that it can be produced in a float plant.

8. (Amended) The aluminoborosilicate glass according to Claim 1, which has a coefficient of thermal expansion  $\alpha_{20/300}$  of between  $2.8 \times 10^{-6}/K$  and  $3.6 \times 10^{-6}/K$ , a glass transition temperature  $T_g$  of  $> 700^\circ C$  and a density  $\rho$  of  $< 2.600 \text{ g/cm}^3$ .

9. (Amended) Use of the aluminoborosilicate glass according to Claim 1 as substrate glass in display technology.

10. (Amended) Use of the aluminoborosilicate glass according to Claim 1 as substrate glass in thin-film photovoltaics.

Please add the following newly presented Claims 11-20.

--11. The aluminoborosilicate glass according to Claim 2, characterized in that it comprises more than 18% by weight, preferably at least 20.5% by weight, particularly preferably at least 21% by weight, of Al<sub>2</sub>O<sub>3</sub>.

12. The aluminoborosilicate glass according to Claim 2, characterized in that the glass comprises more than 8% by weight

of  $B_2O_3$ .

13. The aluminoborosilicate glass according to Claim 2, characterized in that it additionally comprises:

$ZrO_2$	0 - 2
$TiO_2$	0 - 2
with $ZrO_2 + TiO_2$	0 - 2
$As_2O_3$	0 - 1.5
$Sb_2O_3$	0 - 1.5
$SnO_2$	0 - 1.5
$CeO_2$	0 - 1.5
$Cl^-$	0 - 1.5
$F^-$	0 - 1.5
$SO_4^{2-}$	0 - 1.5
with $As_2O_3 + Sb_2O_3 + SnO_2 + CeO_2$ + $Cl^- + F^- + SO_4^{2-}$	0 - 1.5.

14. The aluminoborosilicate glass according to Claim 2, characterized in that the glass is free of arsenic oxide and antimony oxide, apart from unavoidable impurities, and that it can be produced in a float plant.

15. The aluminoborosilicate glass according to Claim 2, which has a coefficient of thermal expansion  $\alpha_{20/300}$  of between  $2.8 \times 10^{-6}/K$  and  $3.6 \times 10^{-6}/K$ , a glass transition temperature  $T_g$  of  $> 700^\circ C$  and a density  $\rho$  of  $< 2.600 g/cm^3$ .

16. Use of the aluminoborosilicate glass according to

Claim 2 as substrate glass in display technology.

17. Use of the aluminoborosilicate glass according to Claim 2 as substrate glass in thin-film photovoltaics.

18. The aluminoborosilicate glass according to Claim 3, characterized in that the glass comprises more than 8% by weight of  $B_2O_3$ .

19. The aluminoborosilicate glass according to Claim 3, characterized in that it additionally comprises:

$ZrO_2$	0 - 2
$TiO_2$	0 - 2
with $ZrO_2 + TiO_2$	0 - 2
$As_2O_3$	0 - 1.5
$Sb_2O_3$	0 - 1.5
$SnO_2$	0 - 1.5
$CeO_2$	0 - 1.5
$Cl^-$	0 - 1.5
$F^-$	0 - 1.5
$SO_4^{2-}$	0 - 1.5
with $As_2O_3 + Sb_2O_3 + SnO_2 + CeO_2$	
+ $Cl^- + F^- + SO_4^{2-}$	0 - 1.5.

20. The aluminoborosilicate glass according to Claim 3, characterized in that the glass is free of arsenic oxide and antimony oxide, apart from unavoidable impurities, and that it can be produced in a float plant.--